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NEW AMERICAN SPIDERS

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Pholcidae

Very few authentic species of *Pholcus* are known from the Americas though several names are still found in literature under that generic category which will ultimately be placed elsewhere. *Pholcus atlanticus* Hentz, described from the southern states, has been properly identified as a synonym of the cosmopolitan *Pholcus phalangioides* (Fuesslin), a common house spider throughout the United States. The species from Bermuda for which Marx used the name of the Australian spider *Pholcus tipuloides* Koch was referred to *Smeringopus elongatus* (Vinson) by Simon. This cosmopolitan spider has not as yet been reported from the United States. Only one authentic species of *Pholcus* in addition to *phalangioides* is known from North America. This, the recently described *Pholcus unicolor* Petrunkevitch from Porto Rico, is now known to occur in Mexico and southern Texas. At least two other species are found in Brazil and additional forms from the Americas may ultimately be referred to the genus. The discovery of a third North American species at Mendham, New Jersey, by Master Manuel Dos Passos, is of considerable interest. After a study of Hentz's figures of *atlanticus*, one of which shows the eye arrangement, and the new form described below, the evident differences preclude the possibility of identity.

Pholcus manueli, new species

Figures 6 and 7

FEMALE.—Total length, 4.50 mm.

	CARAPACE	FRONT	STERNUM	LABIUM	MAXILLA	ABDOMEN
Length	1.37	0.70	0.70	0.15	0.33	3.30 mm.
Width	1.34	0.45	0.86	0.28	0.15	2.30 mm.

Carapace white to dull yellow, with a large, divided, pale brown patch at the middle, the eyes ringed with black. Integument of the carapace sparsely clothed with erect black hairs. Clypeus with two pale brown longitudinal stripes. Sternum and labium dusky brown, the former with a central pale bar at the front margin and three pairs of distinct submarginal pale spots on each side. Maxillae somewhat dusky, the

coxae white. Clothing of the underside black hairs. Chelicerae pale brown, set with short black hairs. Abdomen concolorous with the carapace, without definite pattern, the clothing short black hairs.

Carapace suborbicular in outline as seen from above, the pars thoracica evenly convex, moderately high, the clypeus steeply sloping. Eyes elevated on a low tubercle. Ratio of the eyes: ALE : AME : PLE : PME = 12:8:12:12. First row of eyes seen from in front weakly procurved, the upper margins forming a straight line, the medians separated by about one-fourth their diameter, one-half their diameter from the larger laterals. Clypeus equal in height to more than the width of the first eye row (53/47). Posterior row of eyes moderately recurved, the medians separated by more than the diameter (12/16), subcontiguous with the laterals. Lateral eyes of one side and the posterior median subcontiguous, forming a triad. Median ocular quadrangle broader than long (36/21), narrowed in front (36/17). Sternum broadly truncated in front, truncated behind where the posterior coxae are separated by scarcely their length. Abdomen longer than broad, suboval, moderately high. Epigynum as illustrated in Fig. 7.

Legs long, without spines, evenly clothed with rows of black hairs.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	6.15	0.60	6.50	9.35	1.50	24.10 mm.
II	4.65	0.55	4.35	6.15	1.00	16.70 mm.
III	3.70	0.40	3.20	4.55	0.80	12.65 mm.
IV	5.15	0.50	4.50	6.30	0.90	17.35 mm.

Male.—Total length, 4.50 mm.

	Carapace	Front	Sternum	Labium	Maxilla	Abdomen
Length	1.40	0.90	0.75	0.14	0.35	3.10 mm.
Width	1.30	0.60	0.95	0.28	0.15	1.80 mm.

Coloration and structure in nearly complete agreement with the female. Eye tubercle more strongly elevated, clothed with short, erect, black hairs. Ratio of the eyes: ALE : AME : PLE : PME = 11 : 7 : 11 : 11. First row of eyes weakly procurved, the medians separated by one-fourth their diameter (2/7), about their radius from the lateral eyes (5/7). Posterior eye row very weakly recurved, essentially straight, the medians separated by more than the diameter (18/11). Median ocular quadrangle broader than long (40/22), narrowed in front (40/18). Clypeus equal in height to more then the width of the first eye row (65/50). Chelicera with a stout blunt tooth near the apex.

Palpus as illustrated in Fig. 6. Trochanter with a pale curved spur which is directed laterad.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	7.35	0.60	7.35	11.00	1.80	28.10 mm.
II	5.35	0.50	5.15	7.35	1.10	19.45 mm.
III	4.30	0.50	3.70	5.40	0.85	14.75 mm.
IV	5.70	0.50	5.00	6.70	1.10	19.00 mm.

Type Locality.—Male holotype and female allotype from the garage in the Dos Passos residence at Mendham, New Jersey, collected

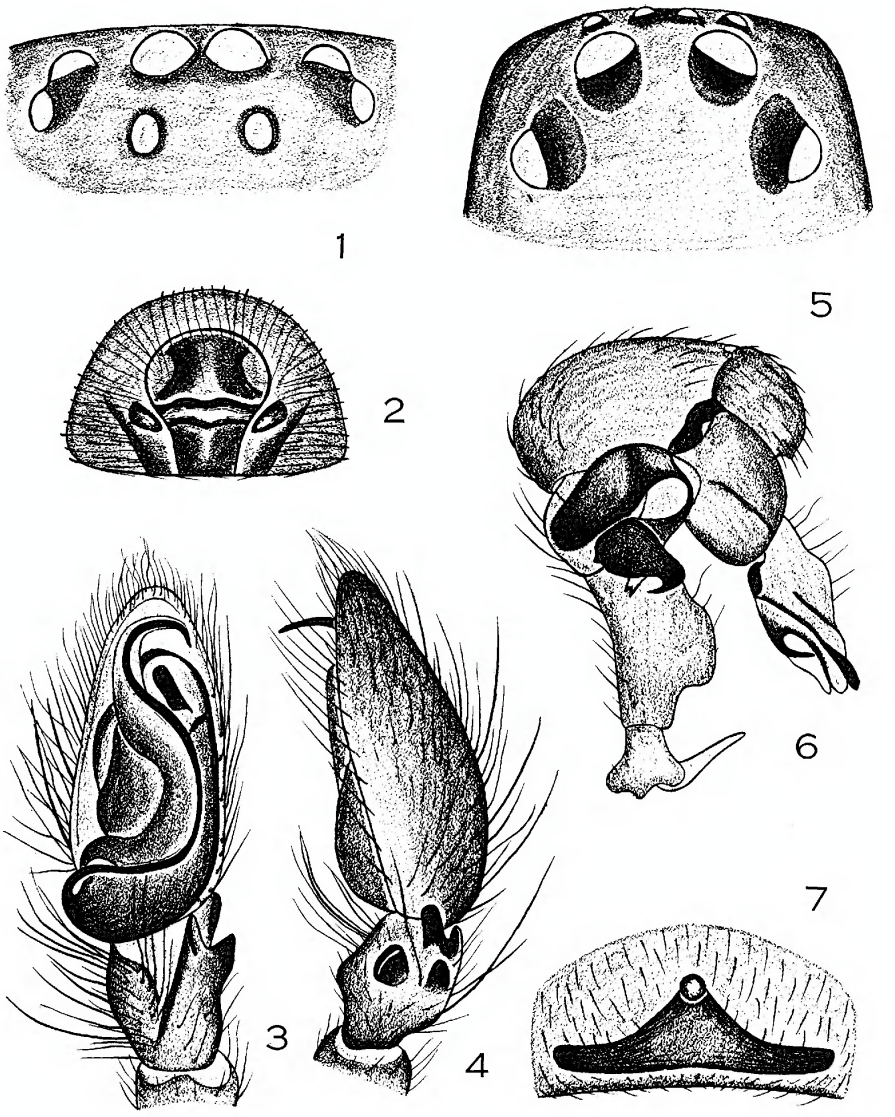

Fig. 1. *Hesperauximus sternitzkii*, new species, eyes of male.
Fig. 2. Idem, epigynum of female.
Fig. 3. Idem, left male palpus, ventral view.
Fig. 4. Idem, left male palpus, retrolateral view.
Fig. 5. *Melocosa fumosa* (Emerton), eyes of female.
Fig. 6. *Pholcus manueli*, new species, left male palpus retrolateral view.
Fig. 7. Idem, epigynum of female.

April 18, 1937, by Manuel Dos Passos. Additional paratypes of both sexes from the same locality, April 28, 1937 (W. J. Gertsch). The types are in the collection of The American Museum of Natural History.

This species approximates *Pholcus phalangioides* (Fuesslin) closely in color and structure but is distinct in various respects. The eyes in both sexes are more closely grouped, the anterior medians being proportionately much nearer the laterals than in *phalangioides*, separated by much less than the diameter in both sexes. The posterior median eyes are correspondingly much nearer together in *manueli*, the separation being much less than two diameters. The apophyses of the bulb of the male palpus and the genital ridges of the female differ in form as illustrated in the figures.

Amaurobiidae

HESPERAUXIMUS, NEW GENUS

A genus of the subfamily Amaurobiinae.

Carapace longer than wide, heavy, very broad in front, strongly convex, the median groove longitudinal. First row of eyes very weakly procurved, the medians slightly larger and nearer each other than their distance to the lateral eyes. Second row of eyes weakly procurved, the eyes equidistantly spaced, the medians smaller. Median ocular quadrangle slightly broader than long, the anterior eyes much larger. Clypeus low, equal in height to the diameter of the anterior median eye. Chelicera with two teeth on the lower margin. Labium slightly longer than broad. Legs robust, strongly spinose, the tibiae unarmed above, with three pairs of ventral spines. Paired claws similar, with a single row of teeth, the median claw with a small denticle. Calamistrum uniseriate. Cribellum divided.

GENOTYPE.—*Hesperauximus sternitzkii*, new species.

This genus is apparently more closely allied to *Amaurobius* than other genera of the family but is distinct in the following respects: the eyes of the posterior row are equidistantly spaced; the labium is only slightly longer than broad; the lower cheliceral margin is armed with only two teeth; and the calamistral hairs are arranged in a single series. From *Callioplus* and *Titanoeca*, genera in which the calamistrum is also uniseriate, it may be separated by the much larger anterior median eyes which slightly exceed in size the anterior laterals and are much larger than the posterior medians. The genital organs in both sexes of *Hesperauximus* differ markedly from the types found in these genera.

Hesperauximus sternitzkii, new species

Figures 1 to 4

FEMALE.—Total length, 9.50 mm.

Carapace dark brown, the pars thoracica and the sides of the head nearly black,

clothed evenly with fine, subprocumbent white hairs with which are interspersed longer erect, black hairs most numerous in the ocular region. Carapace longer than wide, very broad in front, convex, the median groove a deep longitudinal depression which begins back at a point three-fourths of the total length. Sternum longer than broad, gently rounded on the sides, truncated in front, the first coxae separated by their length, more abruptly narrowed caudad of the third coxae to end in an acute point, the posterior coxae separated by three-eighths their width. Labium slightly longer than broad, four-sevenths as long as the endites. Clothing of the under side erect black hairs and a few soft white ones. Chelicera black, somewhat geniculate at the base, clothed with black hairs, the upper margin with four, the lower with two black teeth of which the inner one is larger.

	Carapace	Front	Sternum	Labium	Maxilla	Abdomen
Length	4.50	0.80	2.40	0.80	1.40	5.30 mm.
Width	3.20	2.50	1.70	0.76	0.80	4.00 mm.

Eyes eight, in two rows, the ratio as follows: ALE : AME : PLE : PME = 20 : 23 : 18 : 15. First row of eyes weakly procurved, the large round medians separated by slightly more than their radius (13/23), about a diameter from the smaller oval laterals (21/23). Clypeus equal in height to the diameter of an anterior median eye. Second row of eyes broader than the first (75/88), slightly procurved, the round medians separated by three diameters (15/42), slightly nearer the oval laterals (15/41). Median ocular quadrangle slightly broader than long (70/60), narrowed in front (70/55), the anterior eyes much larger. Lateral eyes of each side separated by their radius.

Legs robust, armed with black spines, the first leg as follows: Femur, dorsal, 1–1–1, prolateral, 2 distal, retrolateral, 1 distal; tibia, prolateral, 1–1–1, retrolateral, 1–1–0, ventral, 2–2–2, the last pair distal; metatarsus, protateral and retrolateral 1–1, ventral 2–2–1, dorsal, 2–2, five of these spines forming a distal ring. Second and third tibiae with 2–2–2 spines, the fourth tibia with 1 median and a distal pair of spines. Last three femora with 1–1–1 dorsals, 1–1 prolaterals and retrolaterals. All tibiae unarmed above. First tarsus with a single row of trichobothria. Calamistrum a single series of curved hairs on a slight carina.

	Femur	Patella	Tibia	Metatarsus	Tarsus	Total
I	3.30	1.60	3.00	2.80	1.35	12.05 mm.
II	2.80	1.40	2.25	2.20	1.10	9.75 mm.
III	2.50	1.25	1.75	1.80	0.80	8.10 mm.
IV	2.80	1.38	2.30	2.20	0.90	9.58 mm.

Abdomen oval as seen from above, gray to yellowish brown in color, the sides dark, the dorsum with a basal hastate dark maculation and dark chevrons in the caudal half which are broken up into spots. Cribellum divided. Front spinnerets about as broad as long, contiguous at their bases, two-jointed, the distal joint very small. Posterior spinnerets more slender, two-jointed, the conical distal joint half as long as the basal. Epigynum as illustrated in Fig. 2.

Male.—Total length, 8.75 mm.

Color and structure in nearly complete agreement with the female. First row of eyes very weakly procurved, essentially straight, the medians separated by one-

third their diameter (8/26), farther from the laterals (16/26). Clypeus equal in height to the diameter of an anterior median eye. Second eye row procurved, the eyes subequidistantly spaced. Median ocular quadrangle scarcely as broad as long (32/33), slightly narrowed in front (30/32). Ratio of the eyes: ALE : AME : PLE: PME = 26 : 21 : 19 : 16. Eye relations as illustrated in Fig. 1. Chelicera proportionately longer than in the female but the armature the same.

	Carapace	Front	Sternum	Labium	Maxilla	Abdomen
Length	4.30	0.95	2.40	0.83	1.40	5.00 mm.
Width	3.20	2.35	1.60	0.76	0.80	3.50 mm.

Legs somewhat more slender than in the female but the spinal arrangement the same. First leg: femur, 3.80 mm.; patella, 1.75 mm.; tibia, 3.95 mm.; metatarsus, 4.00 mm.; and tarsus, 1.75 mm. long. Male palpus as illustrated in Figs. 3 and 4.

Type Locality.—Male holotype, female allotype and female and immature paratypes from near San Francisco, California, sent to me by Mr. R. F. Sternitzky for whom it is a pleasure to name this interesting species. The types are in the collection of The American Museum of Natural History.

Pisauridae

The curious spider described as *Lycosa fumosa* by Emerton seems to find its proper family position in the Pisauridae. This species parallels various lycosids closely in general appearance and superficial structure. A considerable resemblance is also evident in more important structures such as the male palpus in which the bulbal parts are more simplified and compact than usual in the family. The tibia of the palpus completely lacks the normal apophysis. The eye arrangement (see Fig. 5) is suggestive of species of *Dolomedes* and *Thaumasia* and other characters of the species seem to place *fumosa* near these genera in the Thaumasinae.

Melocosa, new genus

A genus of the subfamily Thaumasinae. Carapace somewhat longer than broad, the pars thoracica as viewed from above suborbicular, evenly convex, the pars cephalica half as wide as the greatest width of the carapace, the sides moderately convex. Clypeus equal in height to two-thirds the diameter of an anterior lateral eye. First row of eyes slightly narrower than the second, very weakly procurved (essentially straight), subequidistantly spaced a diameter apart, the laterals slightly larger. Eyes of the second row strongly recurved, the medians separated by scarcely a diameter. Posterior lateral eyes separated from each other by more than three diameters (5/18). Dorsal eye quadrangle much broader than long (23/12.4), very much narrowed in front (23/14.4), the anterior eyes (posterior medians) larger. Labium slightly longer than broad (10/9), the basal excavations one-third the length. Chelicera with three subequal teeth on the lower margin and three on the upper of which

the median is larger. Legs very long, the spines beneath the tibiae, 2–2–2. Fourth tibia with a stout basal spine. Tibia and patella of the fourth leg slightly longer than the fourth metatarsus (7.45 mm./7.15 mm.).

GENOTYPE.—*Lycosa fumosa* Emerton.

Melocosa is distinct from all other pisaurids in completely lacking an apophysis on the tibia of the male palpus. The presence of three teeth on the lower margin of the chelicera will separate it from *Dolomedes*.

Melocosa fumosa (Emerton)

Figure 5

Lycosa fumosa EMERTON, 1894, Trans. Connecticut Acad. Arts and Sci., IX, p. 421, Pl. III, fig. 1.—CHAMBERLIN, 1908, Proc. Acad. Nat. Sci. Philadelphia, p. 272, Pl. XIX, figs. 2 and 3.

RECORDS.—Fairview Mountain, Lake Louise, Alberta, 8000–9000 feet, July 9, 1925, male and female (O. Bryant). Edmonton, Alberta, July, male.

There is a dried male of this species from the Bean collection which was determined by J. H. Emerton in 1894.